

Decision Making, Learning, Knowledge Management, and Information Technology

Learning Objectives

- Differentiate among several models of decision making that describe how managers make decisions
- Describe the nature of organizational learning and the different levels at which learning occurs

Learning Objectives

- Explain how organizations can use knowledge management and information technology to promote organizational learning and improve the quality of their decision making
- Identify the factors, such as the operation of cognitive biases, that reduce the level of organizational learning and result in poor decision making

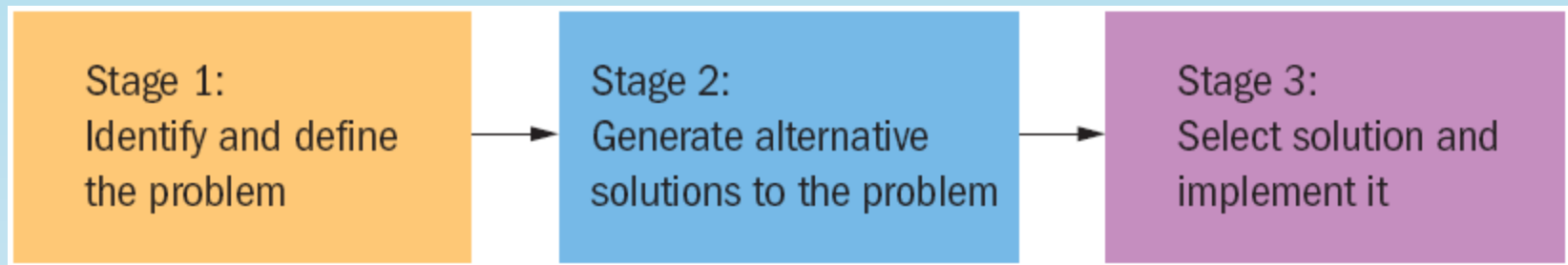
Learning Objectives

- Discuss some techniques that managers can use to overcome these cognitive biases and thus open the organization up to new learning

Organizational Decision Making

- Organizational decision making: The process of responding to a problem by searching for and selecting a solution or course of action that will create value for organizational stakeholders
- Programmed decisions: Decisions that are repetitive and routine
- Nonprogrammed decisions: Decisions that are novel and unstructured

Figure 12.1 – The Rational Model of Decision Making



Models of Organizational Decision Making

- The rational model
 - Underlying assumptions
 - Decision makers have all the information they need
 - Decision makers can make the best decision
 - Decision makers agree about what needs to be done

Models of Organizational Decision Making

- The rational model (cont.)
 - Criticisms of the assumptions
 - Information and uncertainty: The assumption that managers are aware of all alternative courses of action and their consequences is unrealistic
 - Managerial abilities: Managers have only a limited ability to process the information required to make decisions
 - Preferences and values: Assumes managers agree about what are the most important goals for the organization

The Carnegie Model

- Introduces a new set of more realistic assumptions about the decision-making process
 - Satisficing: Limited information searches to identify problems and alternative solutions
 - Bounded rationality: A limited capacity to process information
 - Organizational coalitions: Solution chosen is a result of compromise, bargaining, and accommodation between coalitions

Table 12.1 – Differences Between the Rational and Carnegie Models of Decision Making

Rational Model	Carnegie Model
Information is available	Limited information is available
Decision making is costless	Decision making is costly (e.g., managerial costs, information costs)
Decision making is “value free”	Decision making is affected by the preferences and values of decision makers
The full range of possible alternatives is generated	A limited range of alternatives is generated
Solution is chosen by unanimous agreement	Solution is chosen by compromise, bargaining, and accommodation between organizational coalitions
Solution chosen is best for the organization	Solution chosen is satisfactory for the organization

Models of Organizational Decision Making (cont.)

- The incrementalist model: Managers select alternative courses of action that are only slightly, or incrementally, different from those used in the past
 - Perceived to lessen the chances of making a mistake
 - Called the science of “muddling through”
 - They correct or avoid mistakes through a succession of incremental changes

Models of Organizational Decision Making (cont.)

- The unstructured model: Describes how decision making takes place in environments of high uncertainty
 - Unstructured model recognizes uncertainty in the environment
 - Managers rethink their alternatives when they hit a roadblock
 - Decision making is not a linear, sequential process
 - Tries to explain how organizations make nonprogrammed decisions

Models of Organizational Decision Making (cont.)

- The garbage-can model: A view of decision making that takes the unstructured process to the extreme
 - Decision makers are as likely to start decision making from the solution side as the problem side
 - Create decision-making opportunities that they can solve with ready-made solutions based on their competencies and skills
 - Different coalitions may champion different alternatives

Models of Organizational Decision Making (cont.)

- Decision making becomes a “garbage can” in which problems, solutions, and people all mix and contend for organizational action
- Selection of an alternative depends on which person’s or group’s definition of the current situation holds sway

The Nature of Organizational Learning

- Organizational learning: The process through which managers seek to improve organization members' desire and ability to understand and manage the organization and its environment
 - Creates an organizational capacity to respond effectively to the changing business environment

The Nature of Organizational Learning (cont.)

- Types of organizational learning
 - Exploration: Organizational members search for and experiment with new kinds or forms of organizational activities and procedures
 - Exploitation: Organizational members learn ways to refine and improve existing organizational activities and procedures

The Nature of Organizational Learning (cont.)

- Learning organization: An organization that purposefully designs and constructs its structure, culture, and strategy so as to enhance and maximize the potential for organizational learning to take place
 - Employees at all levels must be able to analyze the way an organization performs and experiments with change to increase effectiveness

Figure 12.2 – Levels of Organizational Learning



Knowledge Management and Information Technology

- Knowledge management: A type of IT-enabled organizational relationship that has important implications for both organizational learning and decision making
 - Involves sharing and integrating of expertise within and between functions and divisions through real-time, interconnected IT

Knowledge Management (cont.)

- Codification approach: Knowledge is carefully collected, analyzed, and stored in databases where it can be retrieved easily by users who input organization-specific commands and keywords
- Personalization approach: IT designed to identify who in the organization might possess the information required for a custom job

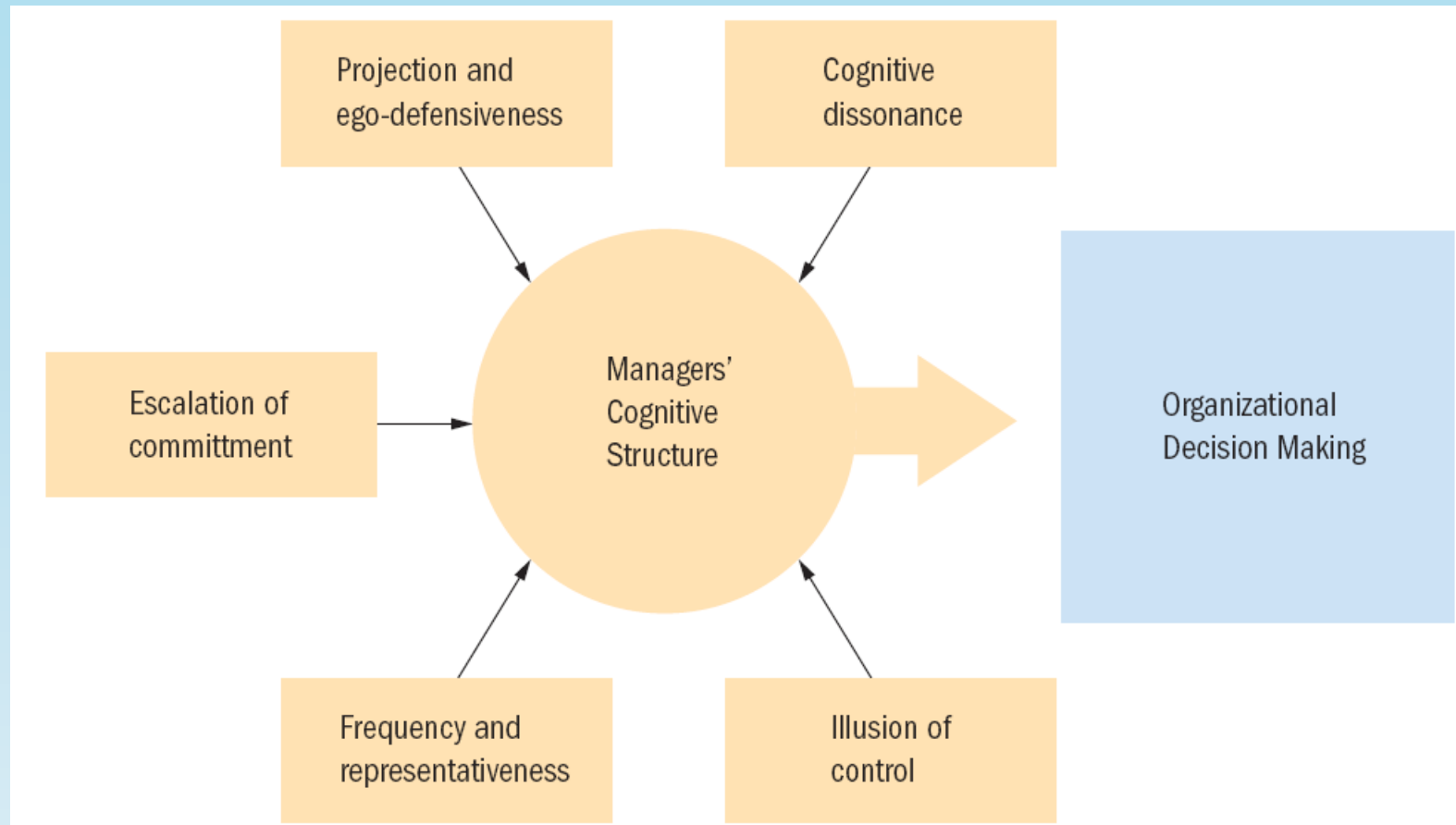
Factors Affecting Organizational Learning

- Several factors may reduce organizational learning over time
 - Managers may develop rules and standard operating procedures to facilitate programmed decision making
 - Past success with SOPs inhibits learning
 - Programmed decision making drives out nonprogrammed decision making

Factors Affecting Organizational Learning (cont.)

- Cognitive structure: System of interrelated beliefs, preferences, expectations, and values that predetermine responses to and interpretations of situations
 - These shape the way managers make decisions and perceive environmental opportunities and threats

Figure 12.3 – Distortion of Organizational Decision Making by Cognitive Biases



Improving Decision Making and Learning

- Strategies for organizational learning
 - Cause managers to continuously unlearn old ideas and confront errors in their beliefs and perceptions
 - Listening to dissenters
 - Converting events into learning opportunities
 - Experimenting

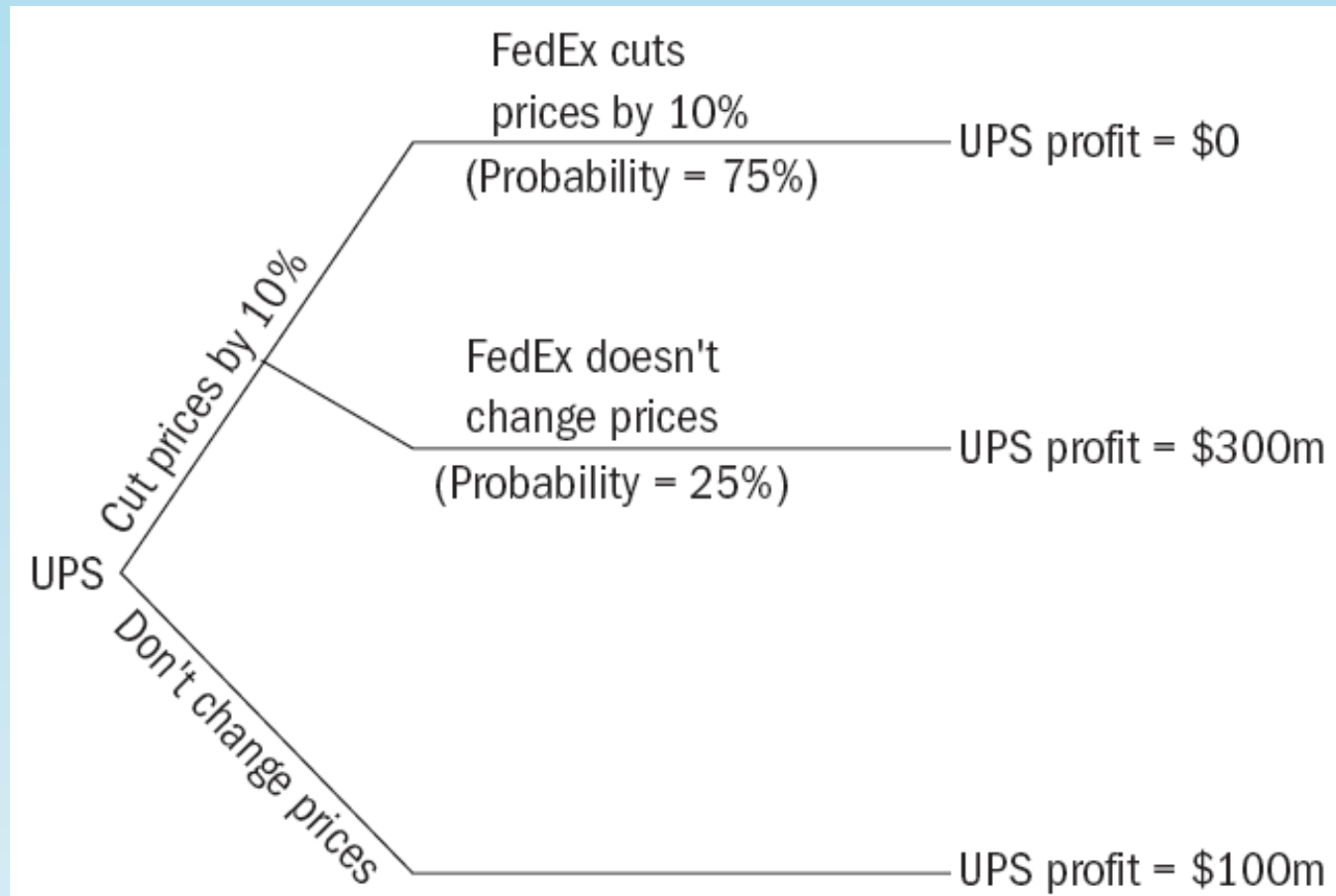
Improving Decision Making and Learning (cont.)

- Game theory: Tool to help managers improve decision making and enhance learning
 - Interactions between organizations are viewed as a competitive game

Improving Decision Making and Learning (cont.)

- Two basic types of game
 - Sequential move game: Players move in turn, and one player can select a strategy to pursue after considering its rival's choice of strategies
 - Simultaneous move game: Players act at the same time, in ignorance of their rival's current actions

Figure 12.4 – A Decision Tree for UPS's Pricing Strategy



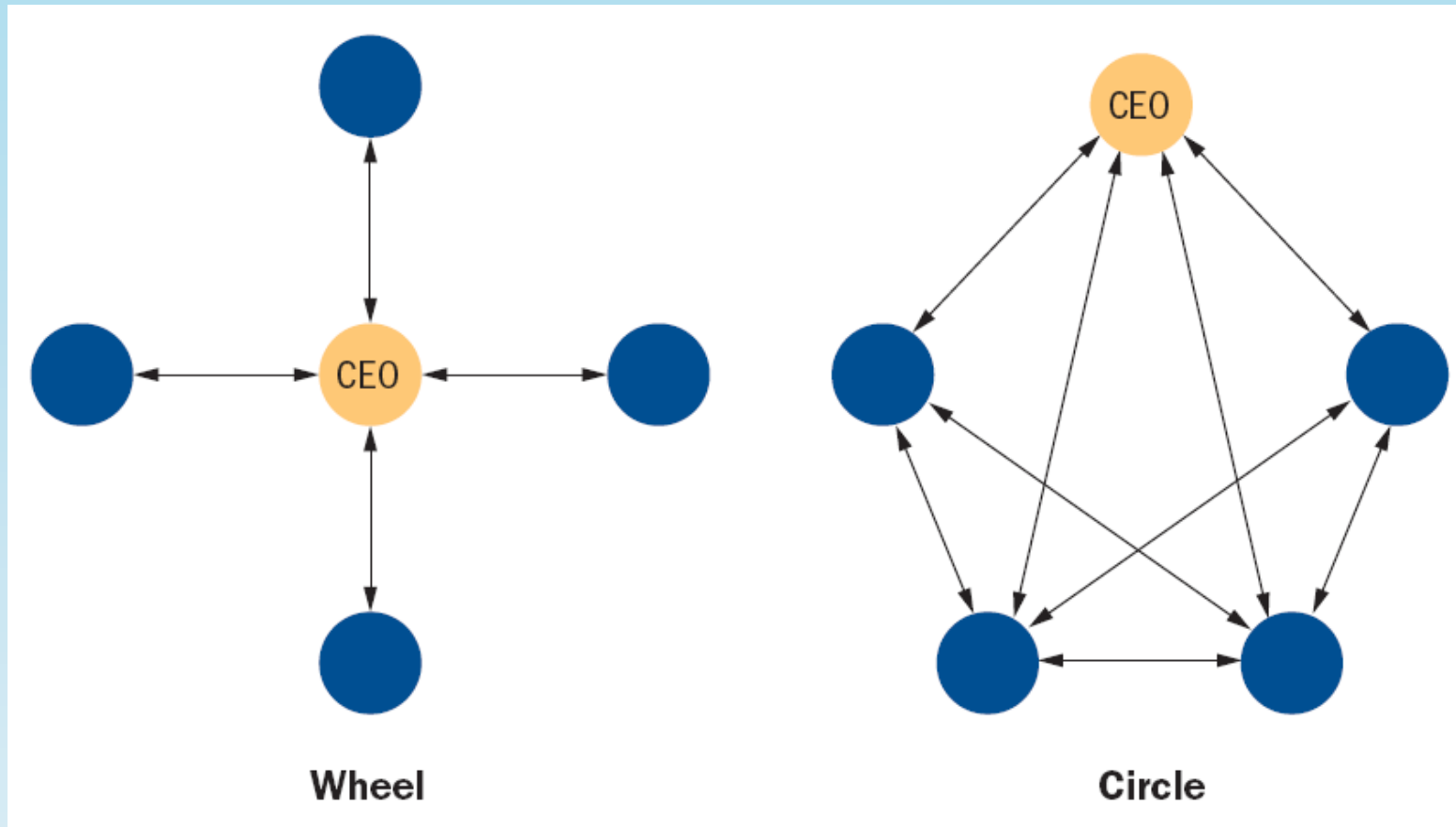
Improving Decision Making and Learning (cont.)

- Nature of the top-management team
 - The way the top management is constructed and the type of people who are on it affect organizational learning
 - Wheel configuration decreases org learning because managers report separately to the CEO
 - Wheel works best when problems are simple and require minimal coordination
 - Circle configuration works best for team and organizational learning

Improving Decision Making and Learning (cont.)

- Learning occurs best when there is heterogeneity of the top- management team
 - Groupthink: The conformity that emerges when like-minded people reinforce one another's tendencies to interpret events and information in similar ways

Figure 12.5 – Types of Top-Management Teams



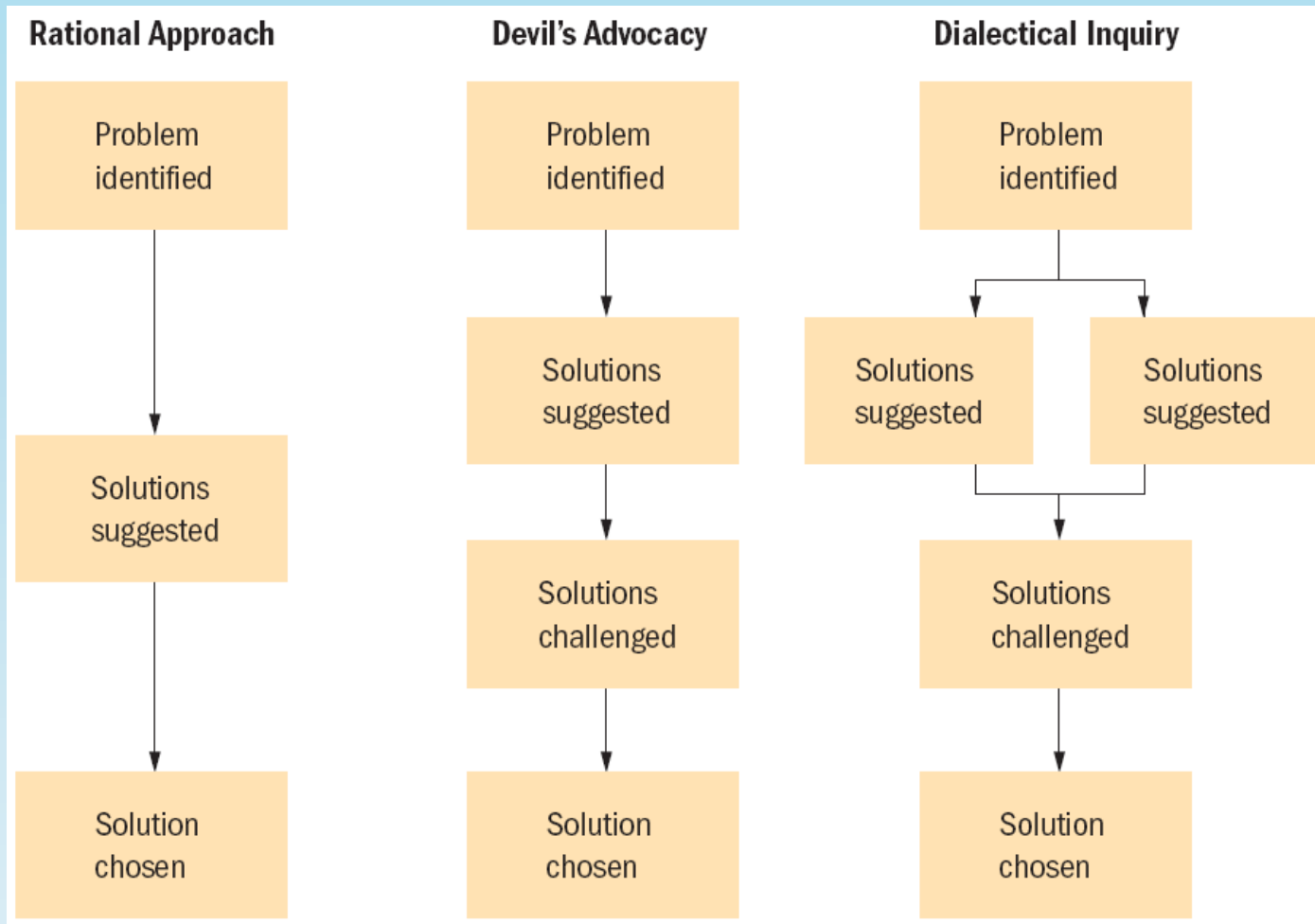
Improving Decision Making and Learning (cont.)

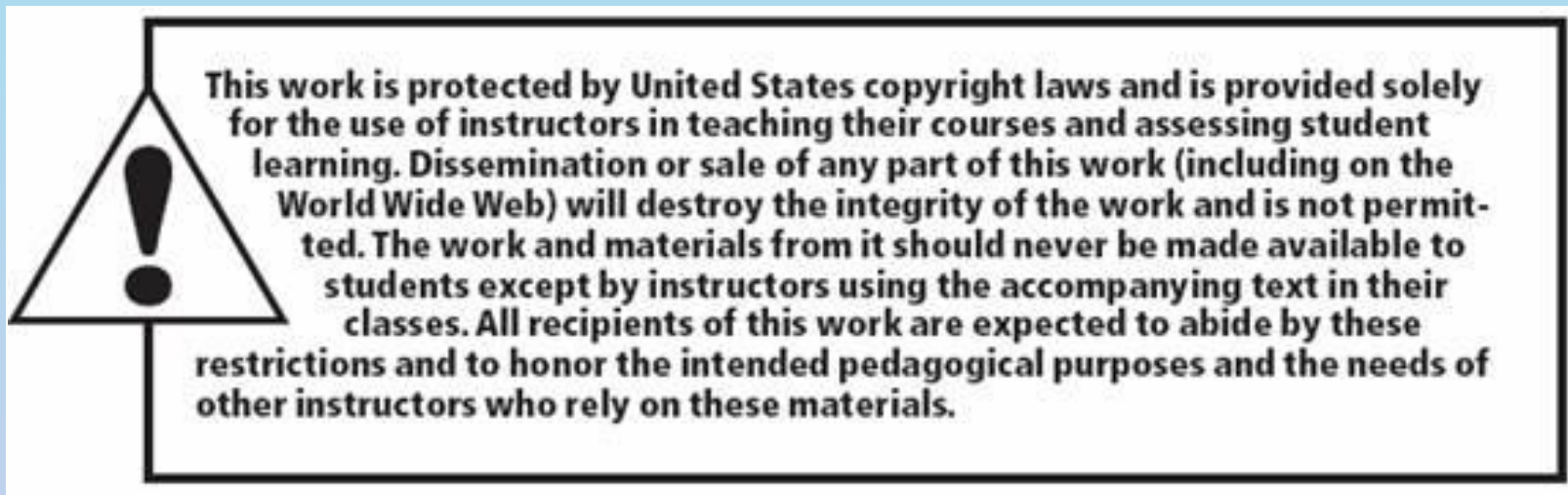
- Devil's advocate: A person who is responsible for critiquing ongoing organizational learning
 - A method for overcoming cognitive biases and promoting organizational learning by institutionalizing dissent
- Dialectical inquiry: Teams of decision makers generate and evaluate alternative scenarios and provide recommendations

Improving Decision Making and Learning (cont.)

- Collateral organizational structure: An informal organization of managers that is set up parallel to the formal organization structure to “shadow” the decision making and actions of managers in the formal organization
 - Allows an organization to maintain its capacity for change at the same time that it maintains its stability

Figure 12.6 – How Devil's Advocacy and Dialectical Inquiry Alter the Rational Approach to Decision Making





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